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3727

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GROUP 3700

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/978,484
Filing Date: October 17, 2001
Appellant(s): LITTLEJOHN ET AL.

Michael Ferrell
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 12/01/04.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

The amendment after Final rejection filed on November 17, 2004 has been entered.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection is incorrect.

The 112, 2nd paragraph rejection is hereby withdrawn. The remaining grounds of rejections are those with obviousness rejection over Marx et al. '499, and Marx et al. '499 over Sanstrom et al. '815

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

It is noted that claim 11 is dependent on a canceled claim 8. To the degree that this claim does not change the ground of rejections and to further the review of the application, the examiner suggests this claim to be treated along with group I as set forth in applicant's Brief.

(8) Evidence Relied Upon

The following is a listing of the evidence (e.g., patents, publications, Official Notice, and admitted prior art) relied upon in the rejection of claims under appeal.

4,721,499	Marx et al.	1-1988
5,1876,815	Sandstrom et al.	3-1999

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Due to overwhelming number of claims, it is noted that the previous Office Action inadvertently indicated that claim 53 was rejected over the rejection of Marx' 499 over Sandstrom (5876815). Claim 53 should have been rejected over the rejection of Marx' 499. This confusion has been addressed as followed and does not change the groupings of rejections.

Claim Rejections - 35 USC § 103

2. Claims 1-6, 9-38, 50-86, 108, and 109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marx et al. (4721499). Marx teaches a container having a planar bottom portion, upwardly extending sidewall, outwardly extending flange portion with densified regions formed from a plurality of paperboard layers with height to diameter ratio ($H/2R=.05-.4$); and flange width to diameter ratio ($(Lr+F)/2R=.005-.4$). Marx teaches the score lines between 10-100 score lines (col. 6, ln. 22). Marx meets all claimed limitations except for the container with SSI rigidity of at least 500 grams at .5 inch deflection. It would have been obvious to one of ordinary

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skill in the art to provide SSI rigidity of at least 500 grams at .5 inch deflection to provide the desired test for the container. Furthermore, the claims must be distinguished from the prior art in term of structure rather than function.

Regarding claims 7-9, note col. 6, lines 23.

Regarding claims 50, 52, the angle $=90-\text{delta}=0-60$ degrees

Regarding claims 54, 55, $C1/2R=.025-.15$.

Regarding claims 56, $C2/2R=.005-.05$

Regarding claim 58, $2R=4-16$ inches, $H=.2-6.4$

Regarding claims 2, 3, 72, 73, it would have been obvious to one of ordinary skill in the art to extend to at least about 75 percent of the length of the scores to provide the desired rigidity of the container.

Regarding claims 10-11, 61-64, 78-79, it would have been obvious to one of ordinary skill in the art to provide the blank having a width from .01 inches to about .05 inches to provide the desired dimension for the container.

Regarding claims 12-16, 67-68, 80-84, to the degree that the excess paperboard per score is based on the relationship with the initial blank and does not impart any structural differences over the dimension as specified in Marx. Furthermore, it would have been obvious to one of ordinary skill in the art to provide the claimed value of the percentage excess paperboard per score to provide the desired dimension for the container.

Regarding claims 38, 68, 71, and 86, it would have been obvious to one of ordinary skill in the art to provide scores to extend to at least about 75 percent of the height of the sidewall to provide the desired rigidity of the container.

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Regarding claim 53, Marx teaches the angle formed by portion 22, it would have been obvious to one of ordinary skill in the art to provide the angle as claimed to provide the desired angle of the plate.

3. Claim 21-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marx et al. (4721499) in view of Sandstrom (5876815). Marx meets all claimed limitations except for the inorganic pigment. Sandstrom teaches that it is known in the art to provide inorganic pigment (col.4, ln. 45-64). It would have been obvious to one of ordinary skill in the art to provide inorganic pigment in Marx as taught by Sandstrom to provide the desired printing pigment for the decorating the container.

With respect to the coating being water-based coating, it would have been obvious to one of ordinary skill in the art to provide water-based press-applied overcoat in Marx as taught by Sandstrom to provide the desired coating for the container.

Note height to diameter ratio ($H/2R=.05-.4$); length of lip to diameter ($LH/2R=.01-.05$)

Regarding claims 30-31, it would have been obvious to one of ordinary skill in the art to provide the blank having a width from .01 inches to about .05 inches to provide the desired dimension for the container.

Regarding claims 32-36, to the degree that the excess paperboard per score is based on the relationship with the initial blank and does not impart any structural differences over the dimension as specified in Marx. It would have been obvious to one of ordinary skill in the art to provide the claimed value of the percentage excess paperboard per score to provide the desired dimension for the container.

Regarding claim 38, it would have been obvious to one of ordinary skill in the art to provide scores to extend to at least about 75 percent of the height of the sidewall to provide the desired rigidity of the container.

(10) Response to Argument

Applicant's arguments filed along with the Brief have been fully considered but they are not persuasive.

With respect to the 112 rejection, applicant's arguments with respect to the 112 rejection have been considered but are moot in view of the withdrawn of the rejection.

A. Claims directed to Group I:

Applicant argues that Marx et al. teach a maximum rigidity value of 280 grams while applicant achieve a rigidity values of nearly 600 grams. It is noted that the result as taught by Marx is obtained by a Marks II Plate Rigidity Tester as described in detail in col. 10, ln. 8-32. Wherein the value obtained from applicant shown in Table 8 is a different test, as described in the specification, page 29, ln. 20 - page 30, ln. 18. The SSI test as claimed was done on a ML-4431-2 SSI by Georgia Pacific Corporation (pg. 30, ln. 10-12). To summarize the test result in Table 8 as followed

- 1) 48 score lines (1.422" length score), SSI (at .5" deflection) = 596
- 2) 48 score lines (1.844' length score), SSI (at .5" deflection) = 597
- 3) 60 score lines (1.844' length score), SSI (at .5" deflection) = 569
- 4) 72 score lines (1.844' length score), SSI (at .5" deflection) = 597

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5) 90 score lines (1.844' length score), SSI (at .5" deflection) = 580

6) 120 score lines (1.844' length score), SSI (at .5" deflection) = 496

The examiner submits the following response:

a) With respect to the resulted in Marx (10-100 score lines with rigidity of 140-280 grams/.5 inches) and the claimed tested range (48-120 score lines with rigidity of 496-597/.5 inches). It is submitted that different tests would yield different result. If the results were of the same test then the performance of Marx would have been similar to that of applicant's.

b) Applicant fails to show the criticality or optimization of the claimed range. There is a significant drop in SSI from a container with 48 score lines (SSI= 597) to a container with 60 score lines, the lower end of the claimed range, (SSI = 569). Thus, there is no increase in performance going from 40 score lines (out side the claimed range but within the range of Marx '499) to 60 score lines (the lower end of the claimed range). " In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range." In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

c) There is no significant drop in SSI from 90 score lines to 120 score lines. If one can interpolate the result from 90 score lines to 120 score lines the result for 100 score lines would be about 552 (Calculation: $580 - [(580-496)/(120-90) \times 10]$). Thus, at 100 score lines, the performance is well within the range as set forth by the claim, which is at least 500 grams. It is noted that one can glance from Fig. 12 can recognize that at 100 score lines the deflection at 100 score line would be well beyond the 500 gram mark. Furthermore, one can glance at both the

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table 8 and the graph shown in 12 can recognize that there is no unexpected result from the range taught by Marx '499.

d) Furthermore, it is noted that Marx'499 teaches that there are other factors including paperweight used and number of score lines (col. 10, ln. 35-37). The specificity to the claim of having a 60-90 scores demonstrate no significant performance over the range established by Marx'499

e) With respect to the height to diameter ratio, it is noted that the SSI tests are done only on one specific kind of container, namely 9 ½ inches diameter, 1 ¼ inches deep (height to diameter ratio = .13). This specificity is clearly taught by Marx '499 ($H/2R=.05-.4$). There is no testing indicating this specificity would provide unexpected result as established in the range shown by Marx.

f) With respect to the flange width to diameter ratio of at least about .04. This specificity is clearly taught by Marx '499 [$(Lr+F)/2R=.005-.4$]. There is no testing indicating this specificity would provide unexpected result as established in the range shown by Marx.

g) Even to the degree that SSI and the Mark II test are the same. Applicant fails to show the criticality or optimization of the claimed range as set forth above. The only tested functionality is based on the different number of score lines. As demonstrated by applicant's own test that having different score lines does not impart any unexpected result. Note that the test done with 48 score lines perform better than the range from 60 - 100 score lines.

2. Claims directed to group II:

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Applicant asserts that the claims are distinguished over the Marx '499 by having the container has from about .015 inches to about .05 inches excess paperboard per score. As defined by specification, see foot note of table 4, along with applicant's explanation on page 17 of the Brief, the excess paperboard (C) = circumference of the blank - circumference of the container, and excess paperboard per score = C / numbers of scores being claimed. In this case, the numbers of scores are 48, 60, 672, 90, and 120. It is noted that the excess paperboard per score is dependent on the circumference of the blank and the numbers of scores. The examiner submits the following response:

a) the claimed container is directed to the final container, and the dependency on the blank, in this case, the circumference of the blank does not impart any structure over the final container. In this case, it is noted that the container of Marx '499 teaches the container can be varied with respect to the original blank. In other words, the angle delta (Δ), shown in Fig. 2 can be varied (30 - 90 degrees: col. 5, ln. 41). Thus, one of ordinary in the art would recognize by changing the various angles of delta would result in different values of circumference of the container compared to the blank.

b) With respect to the score lines, as set forth above, Marx clearly teaches the score lines can be varied from 10-100 score lines. The specificities of the range from 60-90 score lines does not impart any criticality and optimization of the claimed range showing the criticality of the claimed range. "the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range." In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir.1990).

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3. Claims directed to group III:

Group III contains the broadest claims. Claim 108 contains only a limitation of container having an SSI rigidity of at least 500 grams. As set forth above in response to claims directed to Group I, the examiner submits the following response: a) Applicant's test and the test conducted in Marx '499 are not the same, b) Even to the degree that SSI and the Mark II test are the same. Applicant fails to show the criticality of the claimed range. The only tested functionality is based on the different number of score lines. As demonstrated by applicant's own test that having different score lines does not impart any unexpected result. Note that the test done with 48 score lines perform better than the range from 60 - 100 score lines.

4. Claims directed to group IV:

Similar to the response to claims directed to Group III, the claims in this group contain additional recitation of specific amounts of excess paperboard per score lines. As set forth above in response to claims directed to Group II, the examiner submits the following response: a) the claimed container is directed to the final container, and the dependency on the blank, in this case, the circumference of the blank does not impart any structure over the final container, and b) With respect to the score lines, as set forth above, Marx clearly teaches the score lines can be varied from 10-100 score lines. The specificities of the range from 60-90 score lines does not impart any criticality and optimization of the claimed range showing the criticality of the claimed range.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

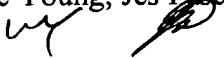
Tri M. Mai
Primary Examiner
Art Unit 3727



February 22, 2005

Conferees

Lee Young, Jes Pascua



MICHAEL W. FERRELL, ESQ.
FERRELLS, PLLC
P.O. BOX 312
CLIFTON, VA 20124-1706